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Tadashi Ohashi

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EXAMINER

COUGHLAN, PETER D

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/766,919

Applicant(s)

OHASHI, TADASHI

Examiner

Peter Coughlan

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2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## Detailed Action

1. This office action is in response to an AMENDMENT entered May 21, 2007 for the patent application 10/766919 filed on August 5, 2003.
2. All previous office actions are fully incorporated into this Final Office Action by reference.

### ***Status of Claims***

3. Claims 1-20 are pending.

### ***35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are rejected under 35 U.S.C. 101 for nonstatutory subject matter.

The computer system must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-

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77. The invention is ineligible because it has not been limited to a substantial practical application. The ability to 'design knowledge' is not a practical application. The result has to be a practical application. Please see the interim guidelines for examination of patent applications for patent subject matter eligibility published November 22, 2005 in the official gazette.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. Is the designing of knowledge to be used to detect cancerous cells, determine a company's profit for the following fiscal year or predict failure rate among locomotive engines? If so no such results have not been claimed.

The invention must be for a practical application and either:

- 1) specify transforming (physical thing) or
- 2) have the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but

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the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

Claims that detect a 'component relating to the products development code' fails to disclose a practical application. Claims which state that weights determine a relationship between components fails to disclose a practical application. Claims which describe a 'temporal inference' in regards to a 'knowledge structure' fails to disclose a practical application. There must be a result that is a practical application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 7, 12, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state the present of a weight and the specification states that the weight is 'computed' but the specification fails to describe how the weight is compute.

These claims need to be amended or withdrawn from consideration.

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Claims 1, 2, 4, 6, 7, 9, 11, 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state 'relationship between the components' but the problem arises is that 'component' is an element of 'relationship' (see ¶0013). So how can a relationship between components exists when 'components' is a subset or 'relationship?'

These claims need to be amended or withdrawn from consideration.

Claims 3, 8 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims have the phrase 'associate components by the inference', which is not mentioned within the specification.

These claims need to be amended or withdrawn from consideration.

Claims 5, 10, and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. These claims contain the phrase 'restructured by an inference.' Paragraph 0092 states that the user allows the knowledge structure restructure relating to a class, but fails to disclose the parameters, methods or algorithms and desired results of said 'restructuring.' The claims or specification fail to disclose how this event takes place or how the final result should be.

These claims need to be amended or withdrawn from consideration.

Claims 4, 14, 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims have the term 'temporal inference on a component' or 'temporal inference process' which is not mentioned within the specification.

These claims need to be amended or withdrawn from consideration.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This claim states that the defining a super class

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forms the root of a hierarchical knowledge tree. The specification is silent in disclosing what 'root' means.

This claim needs to be amended or withdrawn from consideration.

Claims 1, 2, 5, 6, 7, 10, 11, 12, 15, 16, 17, 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims use the terms 'multivalued logic', 'multivalued logic inference', 'multivalued inference process'. The specification states that 'multivalued logic' is used but there is no description what this is. There is no stated algorithm within the specification which illustrates the parameters or methods of 'multivalued logic.'

These claims need to be amended or removed from consideration.

Claims 2, 7, 12, 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claim state the computation of a 'weight.' The specification is silent regarding the algorithm which determines the 'weight' between classes.



These claims need to be amended or removed from consideration.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 9, 14, 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims use the term 'over time' which is subjective and vague and has no definite meaning

These claims need to be amended or removed from consideration.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-15 and 19 use the term 'Structure.' Claims 1, 2, 4, 6, 7, 9, 11, 12, 14, 16-18 use the term 'relationship. Paragraph 0009 in the specification defines a description of a 'structure' as 'structure (use class, class, interface, component, collaboration).' Paragraph 0013 in the specification describes the term 'relationship' as 'relationship (use class, class, interface, component, collaboration).' Both 'structure' and 'relationship' have the same structure. The specification fails to particularly point out and distinctly claim between these two concepts.

These claims need to be amended or removed from consideration.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 102(a) (hereinafter referred to as **Flanagan**) being anticipated by Flanagan, 'Java in a Nutshell.'

**Claims 1**

Flanagan anticipates storing in a database the product's development code name as a super class having a name inclusively describing a component as a class of the component information, the component and the relationship between the components (**Flanagan**, p80:7-14, p170:16-39, p83:6-18; 'Superclass' of applicant is equivalent to 'superclass' of Flanagan. Each class extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. 'Name inclusively describing' of applicant is equivalent to the 'Sun proposes package naming scheme' of Flanagan) and detecting a component relating to the products

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development code name as a super class stored in the database (**Flanagan**, p212:23 through p214:14; 'Detecting a component' of applicant is accomplished by 'any object that conforms to certain basic rules' of Flanagan.) generating a relationship between the components by an inference based on multivalued logic (**Flanagan**, p80:31-38; The 'generation of a relationship between components' of applicant is equivalent to 'an object can be converted to the type of a subclass' of Flanagan.) and configuring the products hierarchical structure from information stored in the database and the relationship between the components obtained by the inference. (**Flanagan**, p214:15-25; 'Configuring the products hierarchical structure' of applicant is equivalent to 'bean context' which 'formalizes nesting relationships' of Flanagan.)

#### Claims 2, 12

Flanagan anticipates the relationship between the components includes a weight which weights a relationship between components obtained by the inference based on the multivalued logic and a hierarchical structure. (**Flanagan**, p156:15 through p157:32; 'Relationship between the components' of applicant is illustrated by the 'map' of Flanagan. An example of a 'weight' of applicant is disclosed 'Map m = new HashMap()' of Flanagan.)

#### Claim 3

Flanagan anticipates wherein in said generating, a new component is generated when the new component can be generated to associate components by the inference,

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and is associated with another component so that the new component's information can be structured. (**Flanagan**, p101:30-40, p156:15 through p157:32; 'Generating a new component' of applicant is equivalent to creating a 'subclass' and associated 'inheritance' of Flanagan. 'Associated with another component' of applicant is accomplished by 'mapping' of Flanagan. )

#### Claims 4

Flanagan anticipates wherein in said generating, a temporal inference on a component's information structure described in a component group is conducted and a relationship between components changing over time with described component's information taken into account, is included in the component's information structure. (**Flanagan**, p67:8-31; In this example, 'generating' of applicant is equivalent to 'creating an object' of Flanagan. 'Over time' of applicant is equivalent to 'Date d' as a function of time of Flanagan. Using the value of 'Date d' components changing over time can be monitored.)

#### Claim 5

Flanagan anticipates wherein on part of a user who uses a component's information structure generated on a part of a designer, the component's information structure design on the part of the designer is restructured by an inference using multivalued logic according to information about the product's development code name describing the hierarchical structure and a component's information group. (**Flanagan**,

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p159:16-39; 'Restructuring' of applicant is equivalent to 'dynamic class loading' of Flanagan.)

#### Claim 6

Flanagan anticipates storing in a database a product's development code name as a super class having a name inclusively describing a component's information of the knowledge, the component's information, and the relationship between the components' information(**Flanagan**, p80:7-14, p170:16-39, p83:6-18; 'Superclass' of applicant is equivalent to 'superclass' of Flanagan. Each class extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. 'Name inclusively describing' of applicant is equivalent to the 'Sun proposes package naming scheme' of Flanagan); detecting a component relating to the product's development code name as a super class stored in the database(**Flanagan**, p212:23 through p214:14; 'Detecting a component' of applicant is accomplished by 'any object that conforms to certain basic rules' of Flanagan.); generating a relationship between the components by an inference based on multivalued logic (**Flanagan**, p80:31-38; The 'generation of a relationship between components' of applicant is equivalent to 'an object can be converted to the type of a subclass' of Flanagan.); and configuring the information structure from information stored in the database and the relationship between the components obtained by the inference. (**Flanagan**, p214:15-25;

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'Configuring the information hierarchical structure' of applicant is equivalent to 'bean context' which 'formalizes nesting relationships' of Flanagan.)

Claim 7

Flanagan anticipates the relationship between the components includes a weight which weights a relationship between components obtained by the inference based on the multivalued logic and a hierarchical structures' information structure. (Flanagan, p156:15 through p157:32; 'Relationship between the components' of applicant is illustrated by the 'map' of Flanagan. An example of a 'weight' of applicant is disclosed 'Map m = new HashMap()' of Flanagan.)

Claim 8

Flanagan anticipates wherein in said generating, a new component is generated when the new component can be generated to associate components by the inference, and is associated with another component so that information can be structured. (Flanagan, p101:30-40, p156:15 through p157:32; 'Generating a new component' of applicant is equivalent to creating a 'subclass' and associated 'inheritance' of Flanagan. 'Associated with another component' of applicant is accomplished by 'mapping' of Flanagan. )

Claim 9

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Flanagan anticipates wherein in said generating, a temporal inference on a knowledge structure described in a component group is conducted and a relationship between components changing over time with described component's information taken into account, is included in the component's information structure. (**Flanagan**, p67:8-31; In this example, 'generating' of applicant is equivalent to 'creating an object' of Flanagan. 'Over time' of applicant is equivalent to 'Date d' as a function of time of Flanagan. Using the value of 'Date d' components changing over time can be monitored.)

#### Claim 10

Flanagan anticipates wherein on a part of a user who uses the component's information structure generated on a part of a designer, a components information structure designed on the part of the designer is restructured by an inference using multivalued logic according to information about a super class describing the knowledge structure and a component group. (**Flanagan**, p159:16-39; 'Restructuring' of applicant is equivalent to 'dynamic class loading' of Flanagan.)

#### Claim 11

Flanagan anticipates a storage unit storing in a database product's development code name as a super class having a product's development code name inclusively describing a component of the component information, the component, and the relationship between the components (**Flanagan**, p80:7-14, p170:16-39, p83:6-18;

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'Superclass' of applicant is equivalent to 'superclass' of Flanagan. Each class or (a plurality of classes ) extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. 'Name inclusively describing' of applicant is equivalent to the 'Sun proposes package naming scheme' of Flanagan); and an inference unit detecting a class relating to a super class stored in the database(**Flanagan**, p212:23 through p214:14; 'Detecting a class' of applicant is accomplished by 'any object that conforms to certain basic rules' of Flanagan. 'Inference unit' of applicant is equivalent to 'certain set of rules' ), generating a relationship between the components by an inference based on multivalued logic(**Flanagan**, p80:31-38; The 'generation of a relationship between components' of applicant is equivalent to 'an object can be converted to the type of a subclass' of Flanagan.) and configured a knowledge structure from information stored in the database (**Flanagan**, p214:15-25; 'Configuring a knowledge structure' of applicant is equivalent to 'bean context' which 'formalizes nesting relationships' of Flanagan.) and the relationship between the components obtained by the inference. (**Flanagan**, p156:15 through p157:32; 'Relationship between the components' of applicant is illustrated by the 'map' of Flanagan. An example of a 'weight' of applicant is disclosed 'Map m = new HashMap()' of Flanagan.)

Claim 13



Flanagan anticipates wherein in the inference unit, a new component is generated when the new component can be generated to associate components by the inference, and is associated with another components so that the new component's information can be structured. (Flanagan, p101:30-40, p156:15 through p157:32; 'A new component is generated' of applicant is equivalent to creating a 'subclass' and associated 'inheritance' of Flanagan. 'Associated with another component' of applicant is accomplished by 'mapping' of Flanagan. )

#### Claim 14

Flanagan anticipates wherein in the inference unit, a temporal inference on a component information structure described in a component group is conducted and a relationship between classes changing over time with described knowledge taken into account is included in the knowledge structure. (Flanagan, p67:8-31; 'Over time' of applicant is equivalent to 'Date d' as a function of time of Flanagan. Using the value of 'Date d' components changing over time can be monitored.)

#### Claim 15

Flanagan anticipates wherein on a part of a user who uses the component information structure generated on a part of a designer, a component information structure designed on the part of the designer is restructured by an inference using multivalued logic according to information about the product's development code name as a super class describing the component information structure and a component

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group. (**Flanagan**, p159:16-39; 'Restructuring' of applicant is equivalent to 'dynamic class loading' of Flanagan.)

#### Claim 16

Flanagan anticipates defining a super class that forms the root of a hierarchical knowledge tree; defining a plurality of classes, where each class represents a concept derived from the super class in the hierarchical knowledge tree; storing relationships between the classes and the super class and between classes in a database (**Flanagan**, p80:7-14, p170:16-39, p83:6-18; 'Superclass' of applicant is equivalent to 'superclass' of Flanagan. Each class or (a plurality of classes ) extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. 'Name inclusively describing' of applicant is equivalent to the 'Sun proposes package naming scheme' of Flanagan); generating a new relationship between the classes and a new class and between the super class and the new class when the new relationship is detected by a multivalued logic inference process(**Flanagan**, p80:31-38; The 'generation of a new relationship between the components' of applicant is equivalent to 'an object can be converted to the type of a subclass' of Flanagan.); and storing the new relationship in the database. (**Flanagan**, p159:16-39; 'Storing a new relationship' of applicant is equivalent to 'dynamic class loading' of Flanagan.)

Claim 17

Flanagan anticipates wherein storing the relationships between classes includes a weight that weights the relationship between classes obtained by the multivalued inference process and the hierarchical knowledge tree. (**Flanagan**, p156:15 through p157:32; 'Relationship between classes' of applicant is illustrated by the 'map' of Flanagan. An example of a 'weight' of applicant is disclosed 'Map m = new HashMap()' of Flanagan.)

Claim 18

Flanagan anticipates generating a new class when the new relationship is detected by the multivalued logic inference process. (**Flanagan**, p212:23 through p214:14; 'Detecting a component' of applicant is accomplished by 'any object that conforms to certain basic rules' of Flanagan. Therefore 'multivalued logic' of applicant is equivalent to 'certain set of rules' of Flanagan. 'New class' of applicant is equivalent to 'subclass' of Flanagan.)

Claim 19

Flanagan anticipates generating a new class when a temporal inference process on the hierarchical knowledge tree detects a change over time in the hierarchical knowledge tree structure that includes the changes in the hierarchical knowledge tree structure. (**Flanagan**, p101:30-40, p156:15 through p157:32; 'Generating a new class' of applicant is equivalent to creating a 'subclass' and associated 'inheritance' of

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Flanagan. 'Changes in the hierarchical knowledge tree structure' of applicant is accomplished by 'mapping' of Flanagan. )

Claim 20

Flanagan anticipates restructuring the hierarchical knowledge tree according to a new super class defined by a user. (**Flanagan**, p214:15-25; 'Restructuring the hierarchical knowledge tree' of applicant is equivalent to 'bean context' which 'formalizes nesting relationships' of Flanagan.)

***Response to Arguments***

5. Applicant's arguments filed on May 21, 2007 for claims 1-20 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

In accordance with the foregoing, claim 6 has been further amended and claims 16-20 have been added. Claims 1-20 are pending and under consideration.

The Remarks submitted on February 28, 2007 addressed the rejections of claims 1-15 under 35 U.S.C. § 101 and 102(b) and claims 4, 9, and 14 under the second paragraph of 35 U.S.C. § 112. Those remarks are incorporated herein by reference. The following addresses the further amendment to claim 6 and the patentable distinctions of new claims 16-20.

Claim 6 has been further amended to remove possible ambiguity regarding "a structure of information as previously recited on line 2 and "an information structure" as recited on line 13. Entry of this further amendment is respectfully requested.

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New claims 16-20 are supported, for example, in FIG. 3 and the description thereof, found on page 17, line 17 to page 21, line 20. Therefore, no new matter has been added and entry of new claims 16-20 is respectfully requested.

On pages 4-7 of the Office Action mailed September 29, 2006, claims 1-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by an article by Osawa entitled, "Generation and Evaluation of Glyphs Representing Superclass-subclass relationships", in an IEEE publication published in 2000 that was identified only by the ISBN number 0-7695-0840-5. As discussed in the February 28, 2007 amendment, it has been assumed that the article was published in the Proceedings of the 2000 IEEE International Symposium on Visual Languages. If Osawa continues to be used in rejecting the claims, the Examiner is respectfully requested to confirm this assumption.

Osawa disclosed glyph representations of classes (Abstract, lines 1-3), but is not enabling with respect to any operations of the methods recited in claims 16-20. As stated in section 2121.01 of the MPEP, "[t]he disclosure in the assertedly anticipating reference must provide an enabling disclosure of the desired subject matter, merely naming or description [sic] of the subject matter is insufficient, if it cannot be produced without undue experimentation" (quoting from *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003)). For example, "inference by multivalued logic", recited in claim 16, lines 8-9, was cited in the Office Action as being anticipated by "initiator (starting symbol)" and "generator (rewriting rule)" of Osawa. The generator in Osawa was further described as a triangular shape on page 82, column 1, line 2. Nothing in Osawa has been found that would allow one skilled in the art to construct an "inference by multivalued logic" from a starting symbol and a triangular shape without undue experimentation. Therefore, it is submitted that claims 16-20 are not anticipated by Osawa.

Examiner's response:

Osawa is no longer used as a reference. Flanagan is used as the only reference. Flanagan discloses all the elements of claim 1. 'Superclass' of applicant is equivalent to 'superclass' of Flanagan. Each class extends into other classes known as superclass. The root of a class hierarchy is named 'object'. All other classes extend to 'object'. 'Storing in a database' of applicant is equivalent to 'serialization' of Flanagan. 'Name inclusively describing' of applicant is equivalent to the 'Sun proposes package

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naming scheme' of Flanagan (**Flanagan**, p80:7-14, p170:16-39, p83:6-18) 'Detecting a component' of applicant is accomplished by 'any object that conforms to certain basic rules' of Flanagan. (**Flanagan**, p212:23 through p214:14) The 'generation of a relationship between components' of applicant is equivalent to 'an object can be converted to the type of a subclass' of Flanagan. (**Flanagan**, p80:31-38) 'Configuring the products hierarchical structure' of applicant is equivalent to 'bean context' which 'formalizes nesting relationships' of Flanagan. (**Flanagan**, p214:15-25) Office Action stands

### ***Examination Considerations***

7. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the

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art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

8. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

9. Examiner's Opinion: Paragraphs 7 and 8 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Claims 1-20 are rejected.

***Correspondence Information***

12. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,  
Washington, D. C. 20231;



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Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 272-3150 (for formal communications intended for entry.)

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



Peter Coughlan

6/22/2007



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